

**BASIS FOR THE AMENDMENT**

The limitations of Claim 22 were included in Claim 1.

Claim 22 was amended as supported by Claim 22 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-22 will now be active in this application.

Claims 4 and 5 are withdrawn from consideration.

### **REMARKS**

Applicants wish to thank Examiner Lightfoot for the helpful and courteous discussion with Applicants' Representative on July 19, 2010. Specifically, we discussed the proposed amendment of Claim 1 by including Claim 22. In addition, the structure and nomenclature for tridecafluoro-1,1,2,2-tetrahydrooctyl-1-triethoxysilane were discussed.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The limitations of Claim 22 were included in Claim 1. Claim 22 was narrowed. Since Claim 22 was already before the Examiner and it is requested that this amendment be entered without requiring a RCE.

The rejection of Claim 22 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph is traversed.

The Examiner states that: "Claim 22 recites "tridecafluoro-**1,1,2,2-tetrahydrooctyl**-1-triethoxysilane", which is confusing because **octyl** does not have C=C double bond in 1,2 position as being a saturated hydrocarbon radical such that 4 hydrogen atoms cannot be introduced into 1,1,2,2 positions to give **1,1,2,2-tetrahydrooctyl**. For examining purposes the phrase was interpreted as "tridecafluoro-**1,1,2,2-tetrahydrooctyl**-1-triethoxysilane"."

During the above-mentioned discussion, the Examiner pointed to example 2 of Nun et al. which discloses tridecafluorooctyltriethoxysilane in ethanol (Dynasilan 8262). It is the Examiner's opinion that this is the same compound as in Claim 22 (now in Claim 1).

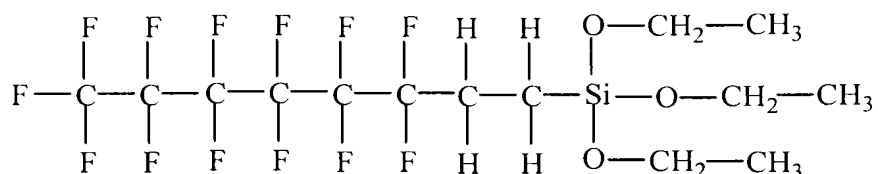
Further, the Examiner stated that the compound in Claim 22 is named incorrectly and should refer to the positions of the fluoro atoms instead of the hydrogen atoms according to UPAC nomenclature.

Further, the Examiner is of the opinion that Dynasilan F 8261 is the same as Dynasilan 8262.

Moreover, the Examiner pointed out that unless the exact structure of the Dynasilan 8262 in example 2 of Nun et al. can be shown, she considers that example 2 broadly discloses all of the compounds mentioned in Claim 22.

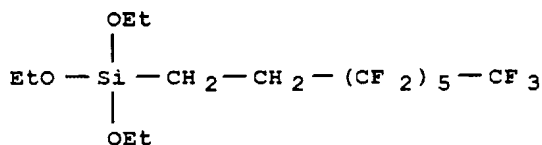
**In reply, Applicants wish to draw the Examiner's attention to the following:**

According to IUPAC, the numbering in a compound has to be done in such way that the **numbers obtained are as small as possible**. As a result, *tridecafluoro-1,1,2,2-tetrahydrooctyl-1-triethoxysilane* (DYNASYLAN<sup>®</sup> F 8261) in Claim 22 (now Claim 1) has the constitutional formula:



Furthermore, Applicants would like to suggest to draw the Examiner's attention to the CAS-No. 51851-37-7, reading „1H,1H,2H,2H-Perfluorooctyltriethoxysilane“, and <http://www.lookchem.com/300w/2010/0621/51851-37-7.jpg>, (attached to the amendment)

which just shows



This formula equals the structure given above.

**Further, Dynasilan F 8261 is NOT the same as Dynasilan 8262.**

For example, EP 1 221 347 A2 (filed via IDS) , at [0036] discloses DYNASYLAN<sup>®</sup> F 8262 to be a mixture of

1.0 weight-% 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane;

0.126 weight-% H<sub>2</sub>O;

0.074 weight-% HCl (absolute);

0.1 weight-% SnCl<sub>2</sub> x H<sub>2</sub>O;

98.7 weight-% ethanol.

This is not the same as DYNASYLAN<sup>®</sup> F 8261 which is defined in the same chapter as tridecafluor-1,1,2,2-tetrahydrooctyl-1-triethoxysilane.

Enclosed is a scheme showing F 8262 which is a formulation in ethanol containing small amount of F 8261 in activated form.

Thus, this rejection should be withdrawn.

The rejections of Claims 1-3 and 6-22 under 35 U.S.C. § 103(a) over Nun as well as over Nun in view of Baumann et al are traversed.

The present invention as set forth in **amended Claim 1** relates to a method for producing a surface,

the method comprising:

fixing microparticles to a carrier layer or a substrate either before or after hydrophobizing of said microparticles;

hydrophobizing said microparticles with component i):

i) a fluorosilane or an oligomer of a fluorosilane,

to form a resulting surface having a surface structure,  
the surface structure having elevations which are formed by said microparticles,  
said elevations having a mean height of from 20 nm to 25  $\mu\text{m}$  and a mean separation  
of from 20 nm to 25  $\mu\text{m}$ ,  
the microparticles having a particle diameter of from 0.02 to 100  $\mu\text{m}$  and having been  
hydrophobized with component i);

**the resulting surface having self-cleaning, oleophobic, lipophobic and lactophobic  
properties;**

**wherein said substrate is a textile; and**

**wherein the component i) is tridecafluoro-1,1,2,2-tetrahydrooctyl-1-  
triethoxysilane; 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxyoligo-siloxane;  
3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane; or an oligomerized  
cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-amino-  
propyltriethoxysilane.**

**Amended Claim 22** relates to the method as claimed in claim 1, wherein the  
component i) is **3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxyoligo-siloxane; or an  
oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane  
and 3-aminopropyltriethoxysilane.**

Nun as well as Nun in view of Baumann et al fail to disclose or suggest a method as  
claimed in which the substrate is a textile and wherein the component i) is tridecafluoro-  
1,1,2,2-tetrahydrooctyl-1-triethoxysilane; 3,3,4,4,5,5,6,6,7,7,8,8,8-  
tridecafluorooctyltriethoxyoligo-siloxane; 3,3,4,4,5,5,6,6,7,7,8,8,8-

tridecafluorooctyltriethoxysilane; or an oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-amino-propyltriethoxysilane.

Nun as well as Nun in view of Baumann et al fail to disclose or suggest a method as claimed in which the substrate is a textile and wherein the component i) is 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxyoligo-siloxane; or an oligomerized cocondensate of 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltriethoxysilane and 3-amino-propyltriethoxysilane.

Further, the limitations of **Claims 6-21** are not disclosed or suggested by Nun or Nun in view of Baumann et al.

During the above-mentioned discussion, the Examiner pointed to example 2 of Nun et al, which discloses tridecafluorooctyltriethoxysilane in ethanol (Dynasilan 8262). It is the Examiner's opinion that this is the same compound as in Claim 22 (now in Claim 1).

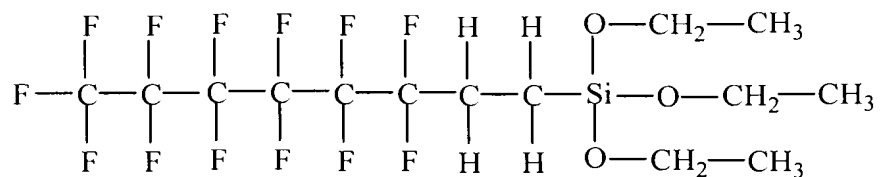
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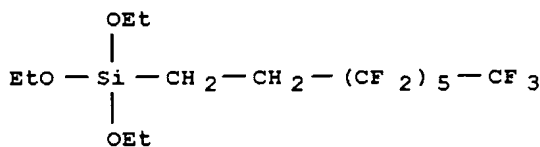
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Enclosed is a scheme showing F 8262 which is a formulation in ethanol containing small amount of F 8261 in activated form.

In the present invention, the particles are hydrophobicized with a fluorosilane or an oligomer of a fluorosilane in such a way that self-cleaning, oleophobic, lipophobic, and lactophobic properties are obtained *simultaneously* for the resulting surface.

Nun et al. discloses the hydrophobicization of particles in paragraph [0025], in paragraph [0028], the fluorine-containing compounds of the carrier are disclosed, and in paragraphs [0046] and [0047], particles with hydrophobic properties achieved with perfluoroalkylsilanes are disclosed.

However, Nun et al. remain silent about how to achieve *the combination of the properties* as claimed in the present invention.

Therefore, the rejections of Claims 1-3 and 6-22 under 35 U.S.C. § 103(a) over Nun as well as over Nun in view of Baumann et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or



otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

Customer Number

**22850**

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

A handwritten signature in black ink, reading "Kirsten Gruenberg". The signature is fluid and cursive, with the first name "Kirsten" and last name "Gruenberg" clearly distinguishable.

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(OSMMN 08/07)